

BLATTIDAE

OF

SPANISH GUINEA

BY

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This small collection was entrusted to me for examination one or two years ago by Sr. D. Ignacio Bolívar but I have only recently had an opportunity to examine it critically. As might have been expected the majority of the species are already known from Kamerun, from which district large collections of cockroaches have been sent to European museums and have been studied by Gerstaecker, Borg and myself.

Gen. **Theganopteryx** *Brunner.*

1. **Theganopteryx nitida** *Borg.*

1 ♂. Previously recorded from Kamerun.

2. **Theganopteryx lucida** *Br.*

1 ♀. A variety with the pronotum strongly marked with two fuscous vittae.

I have examined the type of this species, now in the Stettin Museum; Brunner suggested Australia as the habitat of the species but I have found identical specimens in collections from West Africa and believe that the type came from Old Calabar originally.

3. *Theganopteryx fantastica* sp. n.

♂. Pale flavo-testaceous. Head and antennae unicolorous; eyes piceous, close together on the vertex of the head. Pronotum trapezoidal. Tegmina with 19 costals, radial and anterior ulnar veins simple, posterior ulnar 5 ramose. Wings hyaline, costal margin faintly suffused with flavous, mediastinal vein simple, 18 costals, the more proximal slightly incrassate, medio-discal area nearly 4 times broader in the middle than the medio-ulnar area, crossed by about 13 transverse venules, a prominent apical triangle, 1st axillary 4-ramose.

1st abdominal tergite produced as a flat narrow process extending nearly to the apex of the abdomen slightly spatulate at its apex, 8th tergite with the posterior angles strongly produced; supra-anal lamina quadrately produced, sub-lobiform, covering the bases of the cerci which are situated close together. Sub-genital lamina produced, asymmetrical, apex concavely emarginate, two minute styles. Femora moderately armed, front pair with 3 stout spines on the anterior margin beneath, succeeded distally by piliform setae.

♀. Similar, eyes less close together on vertex of head. Wings uniformly suffused with pale flavid.

Supra-anal lamina produced, trigonal; sub-genital lamina semi-orbicular, ample.

Total length (♂) 9 mm., (♀) 11; length of body (♂) 8-1 mm., (♀) 9-6; length of tegmina (♂) 7 mm., (♀) 9-5; pronotum (♂) 2-9 × 3-2 mm., (♀) 3 × 4-5.

2 ♂♂. This very remarkable species also occurs in Kamerun (coll. Bolívar, Berlin Mus., types). The modification of the secondary sexual apparatus of the male is quite without parallel amongst the Blattidae and combined with the approximation of the eyes on the vertex of the head—an unusual feature in this genus—should render the species easy to determine.

4. *Theganopteryx patricia* Gerst.

2 ♂♂. Differing from Kamerun examples by the unicolorous antennae.

5. *Theganopteryx circumcincta* *Reiche et Fairm.*

1 ♀. An examination of all the types of the African species of this genus and of long series of specimens from different localities convinces me that this highly variable species, which has been described over and over again, ranges over the greater part of tropical Africa and cannot be split up satisfactorily even into local races. The unique Biafra specimen has the tegmina rufo-castaneous, short and lanceolate.

Gen. *Anaplecta* *Burm.*

6. *Anaplecta dahomensis* *Shelf.*

3 examples. Previously known from Dahomey.

7. *Anaplecta biafrae* sp. n.

Unicolorous rufo-testaceous. Tegmina with 12 costals, radial vein simple, 3 longitudinal discoidal sectors. Wings castaneous, radial vein bifurcate from base, 7 costals, joined at their bases by anastomoses, median vein straight not obsolescent at base, medio-discal area scarcely broader than medio-ulnar area, crossed by 3 transverse venules, ulnar vein simple, 1st axillary 3-ramose, apical area not angled at base, equally divided by vena dividens, upper half crossed obliquely by a dark castaneous band, lower half by an obliquely curved vein; length of apical area $\frac{2}{3}$ of total wing-length.

Total length 6 mm.; length of tegmina 4-1 mm.

One example with the abdomen missing.

Gen. *Ischnoptera* *Burm.*

8. *Ischnoptera cinnamomea* *Gerst.*

(Syn. *Ischnoptera basalis*, Gerst. ♂.)

1 ♂, 4 ♀♀. This and the next species are common insects in Kamerun.

9. *Ischnoptera punctifrons* *Gerst.*

1 ♀.

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10. *Ischnoptera escalerae* sp. n.

♂. Castaneous above, pronotum and tegmina laterally margined with testaceous. Legs and abdomen beneath testaceous. Vertex of head rufo-castaneous, antennae infuscated. Tegmina and wings considerably exceeding apex of abdomen. Tegmina with 16 costals, radial vein simple, 16 longitudinal discoidal sectors, anterior ulnar 3-ramose. Wings with veins castaneous, marginal area rufescent, mediastinal vein 4-ramose, 8 non incassated costals, radial vein simple, ulnar vein 7-ramose, 3 rami being incomplete, no triangular apical area. Posterior angles of 6th abdominal tergite strongly produced as blunt processes; scent-gland with triple opening on 7th tergite, concealed beneath the 6th tergite; supra-anal lamina produced, trigonal. Sub-genital lamina asymmetrical, a pair of stout pointed styles, bifurcate at apex. Cerci testaceous. Femora armed in the manner normal to the genus.

♀. Paler, a band between the eyes, a V-shaped mark on the frons, a complicated design on the pronotum, some maculae on the coxae, the disc of the sub-genital lamina, fusco-castaneous. Supra-anal lamina trigonal, shorter than in the ♂, apex subtruncate, not emarginate.

Total length (♂) 17.9 mm., (♀) 18.1; length of body (♂) 12.2 mm., (♀) 14.8; length of tegmina (♂) 14.8 mm., (♀) 15; pronotum 4 × 4.3 mm.

1 ♂, 1 ♀.

The species is allied to *I. cinnamomea* Gerst. but differs in the secondary sexual apparatus of the male; the female resembles the corresponding sex of *I. sordida* mihi, but is larger and the apex of the supra-anal lamina is not incised.

Gen. *Phyllodromia* Serv.11. *Phyllodromia germanica* L.

1 ♂. A cosmopolitan species.

12. *Phyllodromia centralis* Gerst.

1 ♂, 1 ♀. A Kamerun species.

13. *Phyllodromia* sp.?

1 ♀. A form with two castaneous vittae on the pronotum and the tegmina and wings not exceeding the apex of the abdomen. It is advisable to postpone the description of this species until the male is discovered.

Gen. *Liosilpha* Stål.14. *Liosilpha bicolor* Shelf.

1 ♂. Originally described from Kamerun.

Gen. *Epilampra* Burm.15. *Epilampra erubescens* Gerst.

2 ♂♂, 2 ♀♀. All the species of this genus found in this collection were originally described from Kamerun.

16. *Epilampra camerunensis* Borg.

1 ♀.

17. *Epilampra infinita* Borg.

1 ♀.

18. *Epilampra minuta* Borg.

1 ♂, 1 ♀.

Gen. *Periplaneta* Burm.19. *Periplaneta australasiæ* Fab.

1 ♀. Cosmopolitan.

Gen. *Leucophaea* Brunner.20. *Leucophaea surinamensis* L.

1 ♀. Cosmopolitan.

Gen. *Nauphoeta* Burm.21. *Nauphoeta frenata* Gerst.

1 ♀. Previously recorded from Kamerun.

22. *Nauphoeta elegans* Shelf.

1 ♀. Another Kamerun species.

23. *Nauphoeta epilamproides* Shelf., var.

1 ♂ differing from the typical Kamerun form in its slightly larger size and in the presence of broad fuscous vittae on the pronotum.

Gen. *Holocompsa* Burm.24. *Holocompsa nitidula* Fabr.

1 ♀. The species is now found in most of the tropical regions of the world.

Gen. *Ipisoma* Bol.25. *Ipisoma coleopraturum* Bol.

1 ♂. The species was known only from a female from Assinie, the following is a description of the male:

Fuscous; antennae and legs testaceous. Antennae as long as the body; eyes widely separated. Pronotum as in the ♀. Tegmina and wings exceeding the apex of the abdomen. Tegmina overlapping considerably, the part of the right tegmen overlapped by the left, hyaline; margins shortly fimbriate; 10 costals, discoidal sectors oblique, discoidal field reticulated. Wings hyaline, veins and a suffusion in marginal field testaceous; posterior part of wing much reduced, radial vein bifurcate from base, the upper ramus bearing 3 costals, the lower ramus with 5, ulnar vein with 5 sinuate rami. Supra-anal lamina short, transverse. Tarsi without arolia. Length of body 6 mm.; length of tegmina 5 mm.

Gen. *Oxyhaloa* Brunner.26. *Oxyhaloa minima* sp. n.

♂. Differs from *O. perspicua* mihi in its much smaller size, in the rufous colour of the head, body and legs; the first 24 joints of the antennae are piceous, the remainder rufous; ulnar vein of wing with 10 rami; abdomen above with the disc piceous; cerci without a testaceous spot at base beneath; tarsi piceous.

Total length 11.2 mm., length of body 9 mm., length of tegmina 8.8 mm., pronotum 2.8 mm. × 3.5 mm.

1 ♂. The smallest species of the genus,

Gen. **Isoniscus** Borg.27. *Isoniscus scaber* sp. n.

♀. Convex, with a dense sericeous grey pile above and numerous erect tufts of minute scales, so that the upper surface appears pustulose. Head with sericeous pile, eyes less wide apart than the antennal sockets, ocelli absent. Antennae rufescent in basal third, remainder fuscous except for 4 testaceous joints immediately before the apex. Pronotum with anterior margin faintly emarginate in the middle, the posterior angles of all the tergites produced, but much less so than in *I. sjöstedti* Borg. Supra-anal lamina trapezoidal, narrower at base than at apex, posterior margin rounded. The margins of the tergites overlap the sternites. Abdomen beneath nitid, disc rufescent. Legs rufescent, outer margins of tibiae darker, tibial spines in 3 rows stronger and longer than in *I. sjöstedti*, tarsal arolia absent.

Length 17 mm.; pronotum 5.9 mm. × 9 mm.

1 ♀.

This species shows that the natural position of this genus is in the *Perisphaeriinae* and not in the *Panchlorinae* as suggested by Borg; *Isoniscus sjöstedti* is an aberrant species in which the *Perisphaeriine* characters are masked.

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